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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/537,363	06/02/2005	Wiebe De Boer	US02 0527 US	3423
65913	7590	01/27/2010	EXAMINER	
NXP, B.V.			LUND, JEFFRIE ROBERT	
NXP INTELLECTUAL PROPERTY & LICENSING			ART UNIT	PAPER NUMBER
M/S41-SJ			1792	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ip.department.us@nxp.com

Office Action Summary	Application No. 10/537,363	Applicant(s) DE BOER, WIEBE
	Examiner Jeffrie R. Lund	Art Unit 1792

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED. (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 30 September 2009.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-20 is/are pending in the application.
 - 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-20 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date: _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date: _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 1-20 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The newly added limitation "without determining the temperature of the wafer from the electrical signal" (claim 1 and 12) and "the pyrometer is not part of the optical signal measurer" (claim 19) are not taught in the specification or drawings.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-5 and 7-20 are rejected under 35 U.S.C. 102(b) as anticipated by Johnsgard et al, 6,200,634 B1.

Johnsgard et al teaches a wafer manufacturing apparatus and method of controlling the temperature of the wafer manufacturing apparatus comprising: a

susceptor 524 including a support for a wafer 502, the wafer including a topside and a bottom side; a first sapphire optical fiber 826 connected to the susceptor so that radiation from near the edge of the bottom side of the wafer can 534 be monitored; a second sapphire optical fiber 850, 860 connected to the susceptor so that radiation from near the center of the bottom side of the wafer can 534 be monitored; an optical signal measurer 534 coupled to optical fibers and filters the light from the bottom of the wafer and converts it to an electrical signal and supplies the signal to a controller 536. The controller maintains a temperature of the wafer to keep the electrical signal constant during a deposition cycle. The optical fiber is integrated into the susceptor. The susceptor includes a rotating part 522 and a stationary part 528. The measurer inherently includes a filter that filters the light source allowing the desired light to pass.

(Figures 5, 6A, 8 and 9)

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Johnsgard et al, US Patent 6,200,634 B1.

Johnsgard et al was discussed above.

Johnsgard et al differs from the present invention in that Johnsgard et al does not teach that the optical fiber is quartz.

Quartz is a well known material of construction for optical fiber. Furthermore, it has been held that: the selection of a known material based on its suitability for its intended use is *prima facie* obviousness (*Sinclair & Carroll Co. v. Interchemical Corp.*, 325 U.S. 327, 65 USPQ 297 (1945)); and reading a list and selecting a known compound to meet known requirements is no more ingenious than selecting the last piece to put in the last opening in a jig-saw puzzle (325 U.S. at 335, 65 USPQ at 301).

The motivation for making the optical fiber of Johnsgard et al out of quartz is to provide an alternate material of construction.

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to make the optical fiber of Johnsgard et al out of quartz.

7. If it is held that the optical pyrometer 534 of Johnsgard et al does not contain a filter, the following rejection is made.

8. Claims 3, 6, and 12-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Johnsgard et al, US Patent 6,200,634 B1, in view of Schietinger, US Patent Application 2003/0036877 A1.

Johnsgard et al was discussed above.

Johnsgard et al differs from the present invention in that Johnsgard et al does not teach a filter for filtering the optical signal or that the optical fiber is quartz.

Schietinger teaches an optical pyrometer 10 that includes a filter 18 for selectively filtering the emitted radiation to supply the photo detector with the desired wavelength of light (paragraph 0042), and a quartz optical fiber (paragraph 0058).

The motivation for adding a filter of Schietinger to the optical pyrometer is to

supply the proper wavelength of light to the optical pyrometer of Johnsgard et al.

The motivation for making the optical fiber of Johnsgard et al out of quartz is to provide an alternate material of construction. Furthermore, it has been held that: the selection of a known material based on its suitability for its intended use is *prima facie* obviousness (*Sinclair & Carroll Co. v. Interchemical Corp.*, 325 U.S. 327, 65 USPQ 297 (1945)); and reading a list and selecting a known compound to meet known requirements is no more ingenious than selecting the last piece to put in the last opening in a jig-saw puzzle (325 U.S. at 335, 65 USPQ at 301).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to add a filter to the optical pyrometer and make the optical fiber of Johnsgard et al out of quartz as taught by Schietinger.

Response to Arguments

9. Applicant's arguments filed September 30, 2009 have been fully considered but they are not persuasive.

The Applicant has argued that the newly added limitations are not new matter and that they define the invention over the prior art. This is not persuasive because one of ordinary skill in the art knows that a pyrometer is a transducer that converts a detected light strength to an electrical signal. Thus one of ordinary skill in the art would expect that the transducer is a pyrometer. Furthermore, one of ordinary skill in the art recognizes that the electrical signal generated by the pyrometer is supplied to a controller which compares the electrical signal to a predetermined electrical signal and tries to maintain that signal constant. This signal may be calibrated to the desired

temperature. Thus it is not possible to maintain the electrical signal without measuring the temperature. Thus, the new limitations are new matter and Johnsgard et al teaches the claimed subject matter.

Conclusion

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrie R. Lund whose telephone number is (571) 272-1437. The examiner can normally be reached on Monday-Thursday (10:00 am - 9:00 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Parviz Hassanzadeh can be reached on (571) 272-1435. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1792

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jeffrie R. Lund/
Primary Examiner
Art Unit 1792

JRL
4/26/09